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10/767,803	01/29/2004	Robert I. Paterson	04-027	5564

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EXAMINER

WENDELL, MARK R

ART UNIT	PAPER NUMBER
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3609

MAIL DATE	DELIVERY MODE
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05/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/767,803	Applicant(s) PATERSON ET AL.	
	Examiner Mark R. Wendell	Art Unit 3609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/13/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The use of the trademarks DryFix, HeliBond MM2, Helifix WB Primer, Hilti DC-SE 20, and HeliBar 45 has been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner that might adversely affect their validity as trademarks.

The disclosure is objected to because of the following informalities: Page 5, line 17, the word "fastener" should be replaced with "fasteners." Page 6, line 19, the word "millimeters" should be replaced with "millimeter."

Appropriate correction is required.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the additional reinforcement wires laid in parallel along the bed joint from claim 10 and the second reinforcement wire threaded through a second hole from the other direction with an overlap of 150mm of claims 11 and 12 must be shown or the features canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 1 is objected to because of the following informalities: Claim 1, line 9, the words "on to" should be replaced with "onto." Claim 1, line 12, the words "in to" should be replaced with "into." Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11, 12, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 11 and 12, the claimed method depends upon the method of claim 10, which claims reinforcement wires laid in parallel along a bed joint. However, the dependent claims 11 and 12 claim reinforcement wires threaded in opposite directions providing an overlap, which the examiner interprets to mean perpendicular. It is not clear within the scope of the claims as to how a method of placing wire perpendicular to one another depends from a method of placing wire parallel to one another with no overlap.

Regarding claim 30, it is improper to modify an apparatus claim with a method step, such as including the "step of chasing mortar from a bed joint." The metes and bounds of the claims cannot be determined.

Regarding claim 33, the claimed method depends upon the method of claim 32, which claims reinforcement wires laid in parallel along a bed joint. However, the dependent claims 33 claims reinforcement wires threaded in opposite directions providing an overlap, which the examiner interprets to mean perpendicular. It is not clear within the

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scope of the claims as to how a method of placing wire perpendicular to one another depends from a method of placing wire parallel to one another with no overlap.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 28-32, 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Hohmann (US 5816008). Hohmann illustrates in Figures 1 and 2 a system for reinforcing or fixing a veneer wall comprising:

- A fastener (48, 52) installed into the back-up wall (26) of a structure, the fastener having a threaded portion extending at right angles to the back-up wall providing engagement with a connector (42);
- A connector (42) fitted onto the fastener (48, 52) and having a portion for receiving (66, 68) a reinforcement wire (46);
- A reinforcement wire (46) fitted into the connector (42);
- A connector (42), reinforcement wire (46) and a portion of the fastener (48, 52) encased in filler material (column 4, lines 62-65) within the bed joint (28) of the veneer wall (10).

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Regarding claim 31, Hohmann illustrates in Figure 1 a reinforcement wire (46) threaded through receiving portions (66,68) of multiple connectors (42) along the mortar bed joint (28).

Regarding claim 32, Hohmann discloses in claim 3 (lines 4-12) that a connector (referred to in Hohmann's claim as "wire capturing means") is provided with additional receiving portions for additional reinforcement wires.

Claim 35 is rejected under 35 U.S.C. 102(b) as being anticipated by Cooney et al. (US 5138813). Cooney illustrates in Figure 2 a metal wall tie fastener (20) made from twisted profile wire and having helical fins. The examiner notes that Cooney discloses item (20) as being a "securing bolt" and it is well known in the art of building construction that bolts have helical fins and can be installed into walls using a percussion tool without the use of an adhesive. The examiner also notes that the fastener being installed using a percussion tool adds no additional structure to the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-27, 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohmann (US 5816008) in view of Cooney et al (US 5138813).

Hohmann illustrates in Figures 1 and 2:

- A connector (42) fitted onto the fastener (48, 52) and having a portion for receiving (66, 68) a reinforcement wire (46);
- A twisted profile reinforcement wire (46) fitted into the connector (42);
- A connector (42), reinforcement wire (46) and a portion of the fastener (48, 52) encased in filler material (column 4, lines 62-65) within the bed joint (28) of the veneer wall (10).

Hohmann does not illustrate a fastener in combination with a thread engaging connector. However, Cooney illustrates in Figure 2:

- A fastener (20) capable of being fastened to a back-up wall having a threaded portion that extends at right angles to provide a thread engagement with a connector (12);

It would be obvious to one of ordinary skill in the art to modify the reinforcing bracket connectors of Hohmann with the thread engaging fastener / connector of Cooney for cost and ease purposes. Threaded connector / fastener systems are less costly and more readily available than large, cumbersome bracketing fasteners. It would also be obvious to one ordinary skill in the art to provide a hole within the connector of Cooney as shown in the bracket of Hohmann to run electrical / cable wires within the veneer wall

within the building. Concerning claim 1, the combination renders the claimed method steps obvious since such would be logical manner of using the combination.

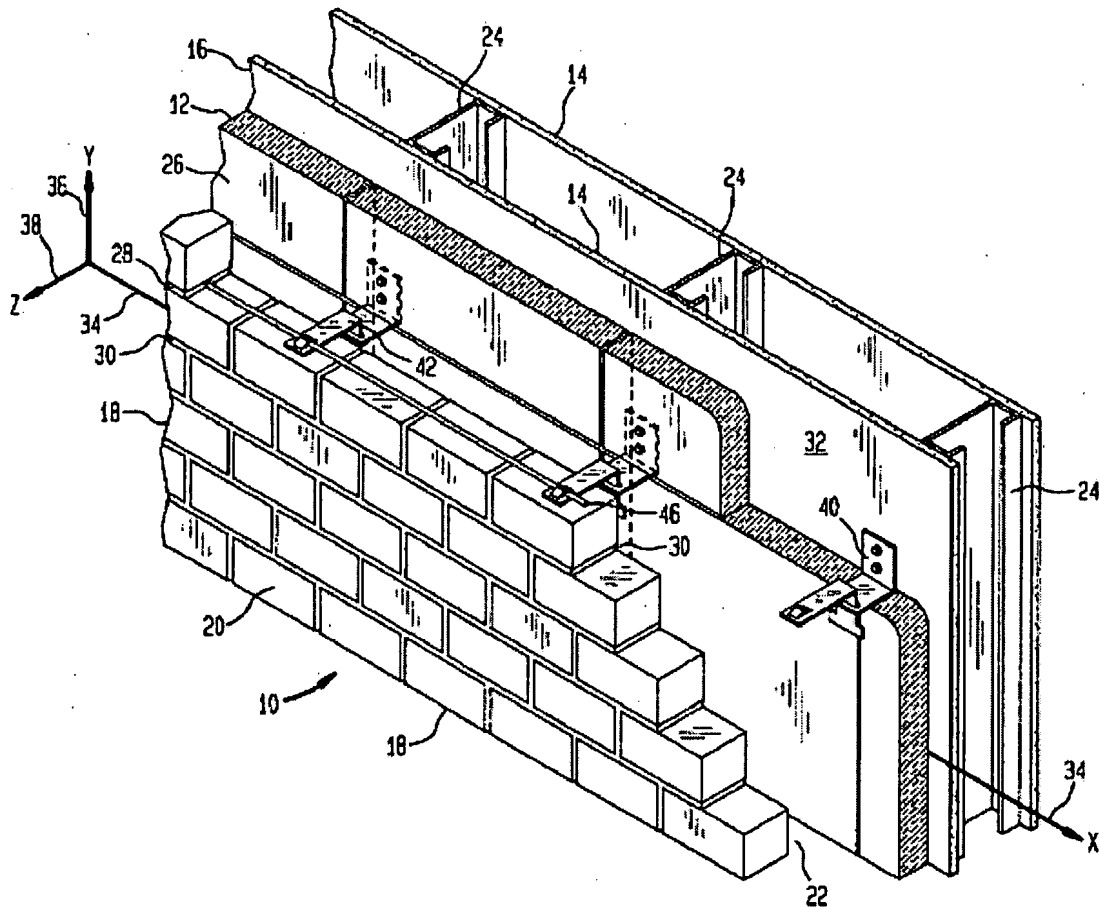


Figure 1 of Hohmann

Regarding claim 2, Cooney illustrates in Figure 2 a metal wall tie fastener (20) of a helical type.

Regarding claim 3, the examiner takes official notice that it is well known within the art of building construction that fasteners (20) can be installed using a percussion tool. The

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examiner also notes that the fastener being installed using a percussion tool adds no additional structure to the claim.

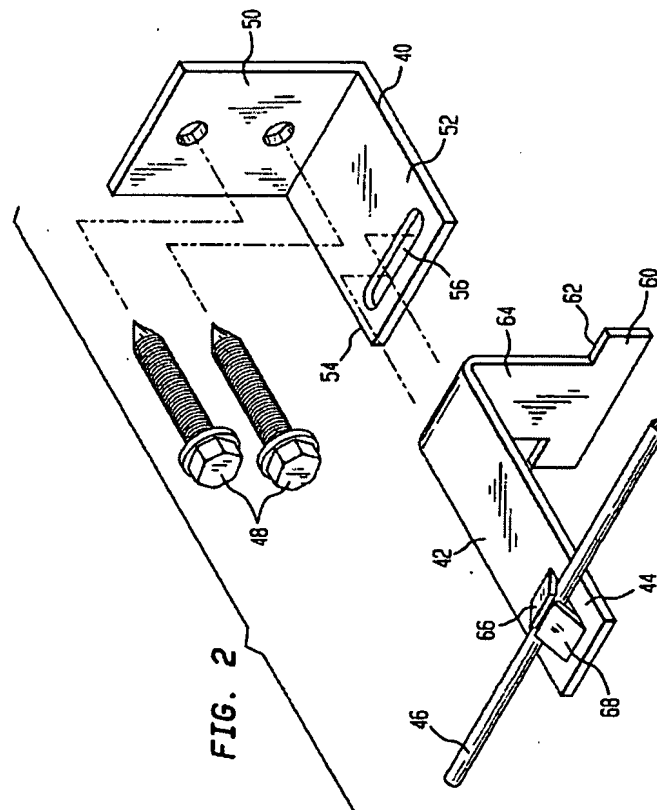
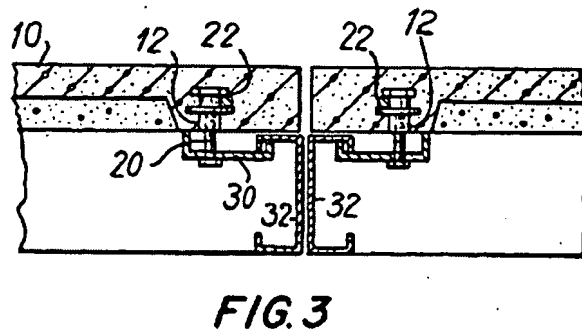
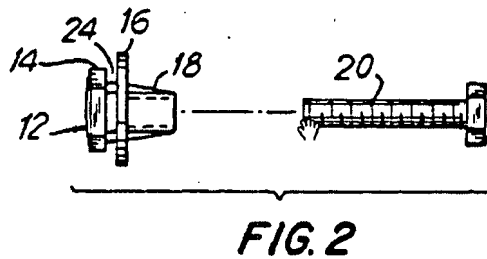


Figure 2 of Hohmann

Regarding claims 4 and 5, Cooney illustrates in Figure 3 the fastener (20) extending at a right angle to the plane of the back-up wall and the connector (12) fitting over the protruding end of the fastener (20).



Figures 2 and 3 of Cooney et al.

Regarding claim 6, Cooney discloses in Column 3, line 33, that the connector (12) is a "threaded tubular connector," thus it would be obvious to one of ordinary skill in the art to screw the fastener (20) into the connector (12).

Regarding claim 7, Hohmann illustrates in Figure 1, the reinforcement wire (46) positioned close (between 25-50 mm) from the external surface of the veneer wall (10). Hohmann discloses the invention except for the reinforcement wire positioned 25-50mm from the external surface of the wall. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a reinforcement wire

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positioned between 25 and 50 mm from the external surface of the veneer wall, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (In re Aller, 105 USPQ 233).

Regarding claim 8, Hohmann illustrates in Figures 1 and 2 a reinforcement wire (46) threaded through a hole in the receiving portion (66,68) of the connector (42).

Regarding claim 9, Hohmann illustrates in Figure 1 a reinforcement wire (46) threaded through receiving portions (66,68) of multiple connectors (42) along the mortar bed joint (28).

Regarding claims 10-12, 33, although not shown, Hohmann discloses in claim 3 (lines 4-12) that a connector (referred to in Hohmann's claim as "wire capturing means") is provided with additional receiving portions for additional reinforcement wires.

Regarding claims 14, 15 and 34, Hohmann illustrates in Figure 1 a reinforcement wire (46) extending the length of the wall and around a building.

Regarding claims 16 and 17, Hohmann illustrates in Figure 1 the connector (42) and reinforcement wire (46) within a mortar bed joint (28) at a junction of a pair of bricks (see modified figure below).

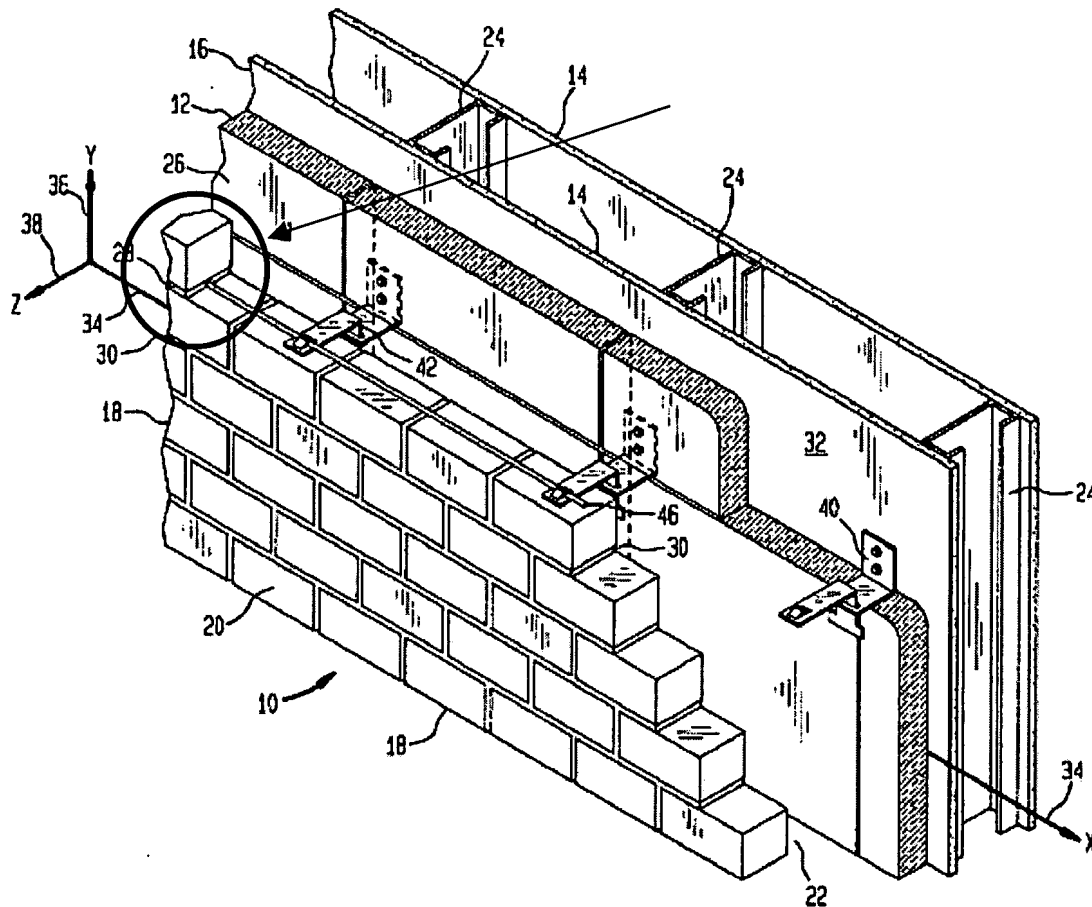


Figure 1 of Hohmann

Regarding claim 18, the examiner notes that when repairing the reinforcement structure (wire, fasteners, connectors) of a veneer wall, it is notoriously obvious to remove the mortar from the bed joints.

Regarding claim 19, Cooney illustrates in Figure 2 a connector (12) comprising:

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- A tube of internal diameter between 6 and 12 mm (18) closely fitting the external diameter of the helical fins of the wall tie (20). The examiner notes it is well known within the art of building construction that bolts typically have diameters between 3 and 15 mm, thus a connector to fit a bolt of that range would have to be between 6 and 12 mm;
- At least one region of narrowed internal diameter (18, 24) and crimped section to prevent withdrawal of the wall tie (20) from the connector (12).

Cooney does not teach a hole passing through opposing sides of the connector to facilitate the use of a reinforcement wire. However, Hohmann illustrates in Figures 1 and 2 a hole passing through opposing sides of the connector (42) at right angles to the longitudinal axis of the tube, or bracket (64). It would be obvious to one of ordinary skill in the art to modify the reinforcing bracket connectors of Hohmann with the thread engaging fastener / connector of Cooney for cost and ease purposes. Threaded connector / fastener systems are less costly and more readily available than large, cumbersome bracketing fasteners. It would also be obvious to one ordinary skill in the art to provide a hole within the connector of Cooney as shown in the bracket of Hohmann to run electrical / cable wires within the veneer wall within the building.

Regarding claim 20, although not shown, Hohmann discloses in claim 3 (lines 4-12) that a connector (referred to in Hohmann's claim as "wire capturing means") is provided with additional receiving portions for additional reinforcement wires.

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Regarding claim 27, Hohmann illustrates in Figure 1 the axis of the tube, or bracket (42), is in-line with the hole for the reinforcing wire (46). The examiner notes that the terms "in-line" are being interpreted at being perpendicular.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cooney et al. (US 5138813) in view of Hohmann (US 5816008). Cooney illustrates in Figures 2 and 3:

- A helical wall tie (20) fastened into the inner leaf of a wall secured through mechanical interlock without an adhesive.
- A connector (12) over the wall tie (20), the connector (12) having a narrowed diameter (18) defined by opposed flats.

Cooney does not teach the connector having a hole for receiving a reinforcement wire and securing the said wire and connector in a filler material within a bed joint. However, Hohmann illustrates in Figures 1 and 2:

- A connector, or bracket (42), having a holes defined by (66, 68) for receiving a reinforcement wire (46) at a right angle to the wall tie (50);
- Securing the reinforcement wire and connector in a filler material within the bed joint (28) of the veneer wall (10).

Concerning claim 36, the combination renders the claimed method steps obvious since such would be logical manner of using the combination. It would be obvious to one of ordinary skill in the art to modify the reinforcing bracket connectors of Hohmann with the thread engaging fastener / connector of Cooney for cost and ease purposes. Threaded

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connector / fastener systems are less costly and more readily available than large, cumbersome bracketing fasteners. It would also be obvious to one ordinary skill in the art to provide a hole within the connector of Cooney as shown in the bracket of Hohmann to run electrical / cable wires within the veneer wall within the building.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Handel (US 2338328) teaches an anchor for use in veneering concrete structures. Reinwall et al. (US 4764069) teaches an anchor for masonry veneer walls. Schlenker (US 4227359) teaches adjustable single unit masonry reinforcement with wall ties.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Wendell whose telephone number is (571) 270-3245. The examiner can normally be reached on Mon-Fri, 7:30AM-5PM, Alt. Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on (571) 272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Victor Batson
Supervisory Patent Examiner
Art Unit 3609

MW
May 24, 2007